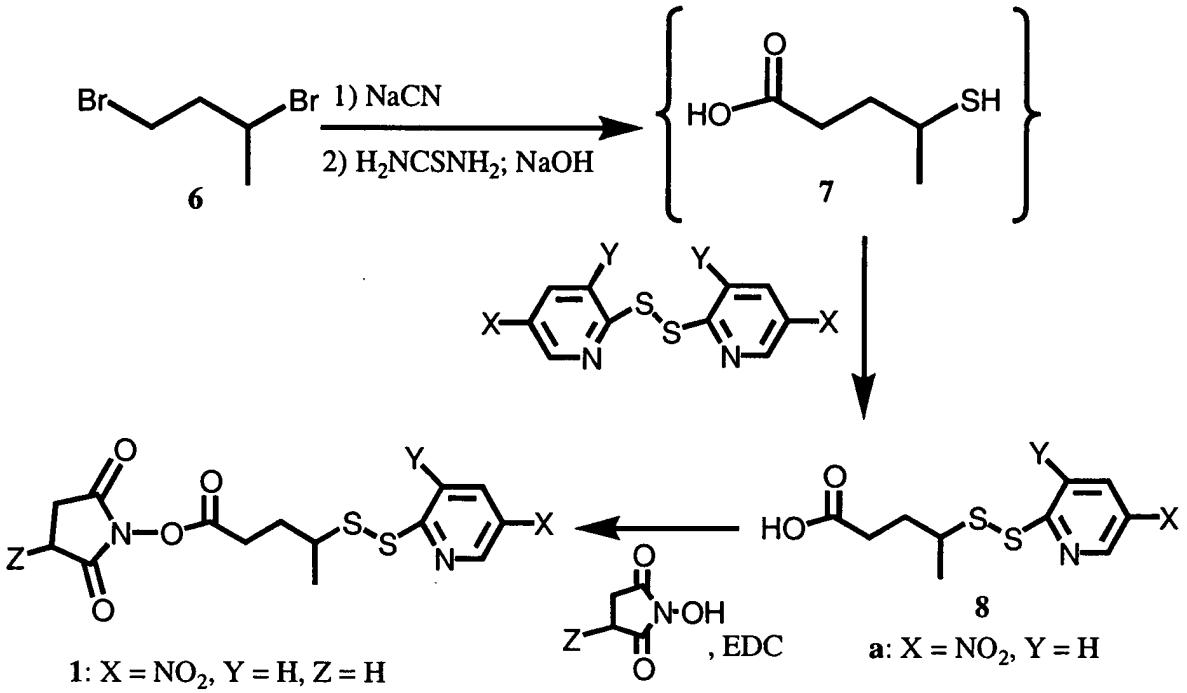
Figure 1



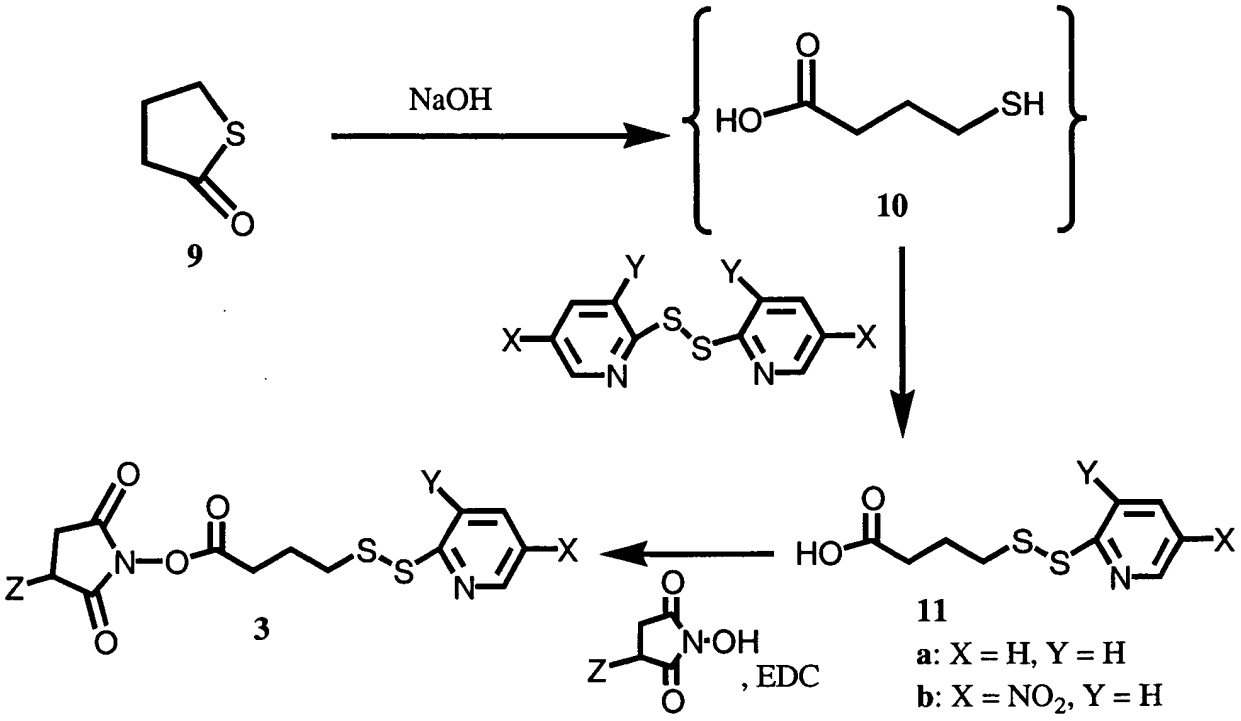
1: X = NO_2, Y = H, Z = H

2: X = NO_2, Y = H, Z = $SO_3^-M^+$

X	Y	Z
NO_2	H	H
NO_2	H	$SO_3^-M^+$
H	NO_2	H
H	NO_2	$SO_3^-M^+$
NO_2	NO_2	H
NO_2	NO_2	$SO_3^-M^+$
$CONMe_2$	H	H
$CONMe_2$	H	$SO_3^-M^+$
H	$CONMe_2$	H
H	$CONMe_2$	$SO_3^-M^+$
$CONMe_2$	$CONMe_2$	H
$CONMe_2$	$CONMe_2$	$SO_3^-M^+$

M = Na, K etc

Figure 2

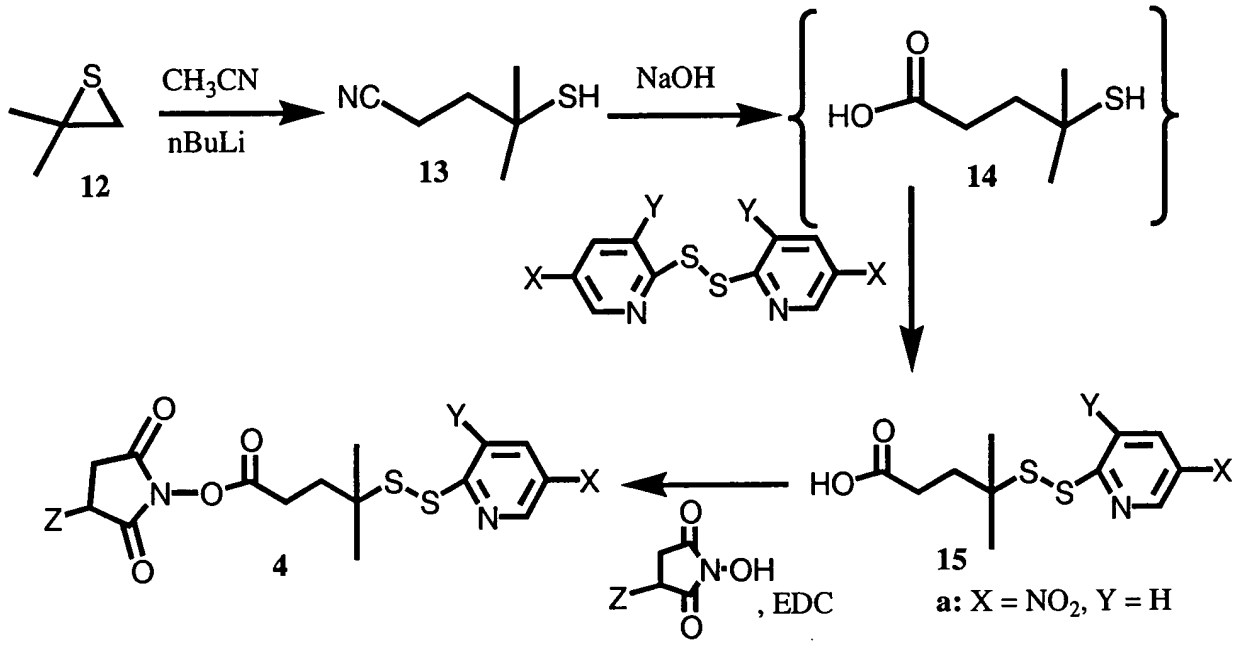


a: X = H, Y = H
b: X = NO_2, Y = H

X	Y	Z
H	H	H (Compound **3a**)
NO_2	H	H (Compound **3b**)
NO_2	H	$SO_3^-M^+$ (Compound **3c**)
H	NO_2	H
H	NO_2	$SO_3^-M^+$
NO_2	NO_2	H
NO_2	NO_2	$SO_3^-M^+$

M = Na, K etc

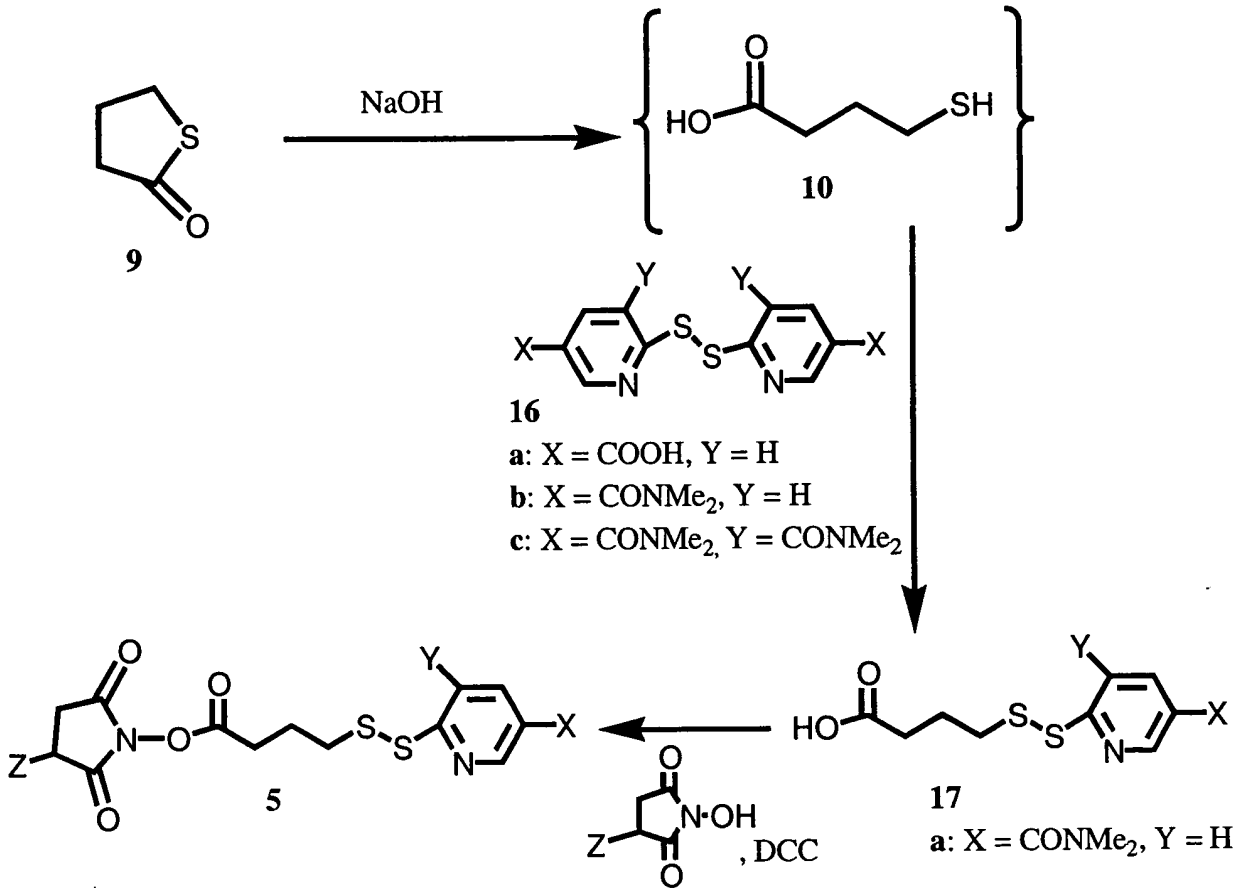
Figure 3



X	Y	Z
NO_2	H	H (Compound **4a**
NO_2	H	$SO_3^-M^+$ (Compound **4b**)
H	NO_2	H
H	NO_2	$SO_3^-M^+$
NO_2	NO_2	H
NO_2	NO_2	$SO_3^-M^+$
H	H	H
$CONMe_2$	H	H
$CONMe_2$	H	$SO_3^-M^+$
H	$CONMe_2$	H
H	$CONMe_2$	$SO_3^-M^+$
$CONMe_2$	$CONMe_2$	H
$CONMe_2$	$CONMe_2$	$SO_3^-M^+$

M = Na, K etc

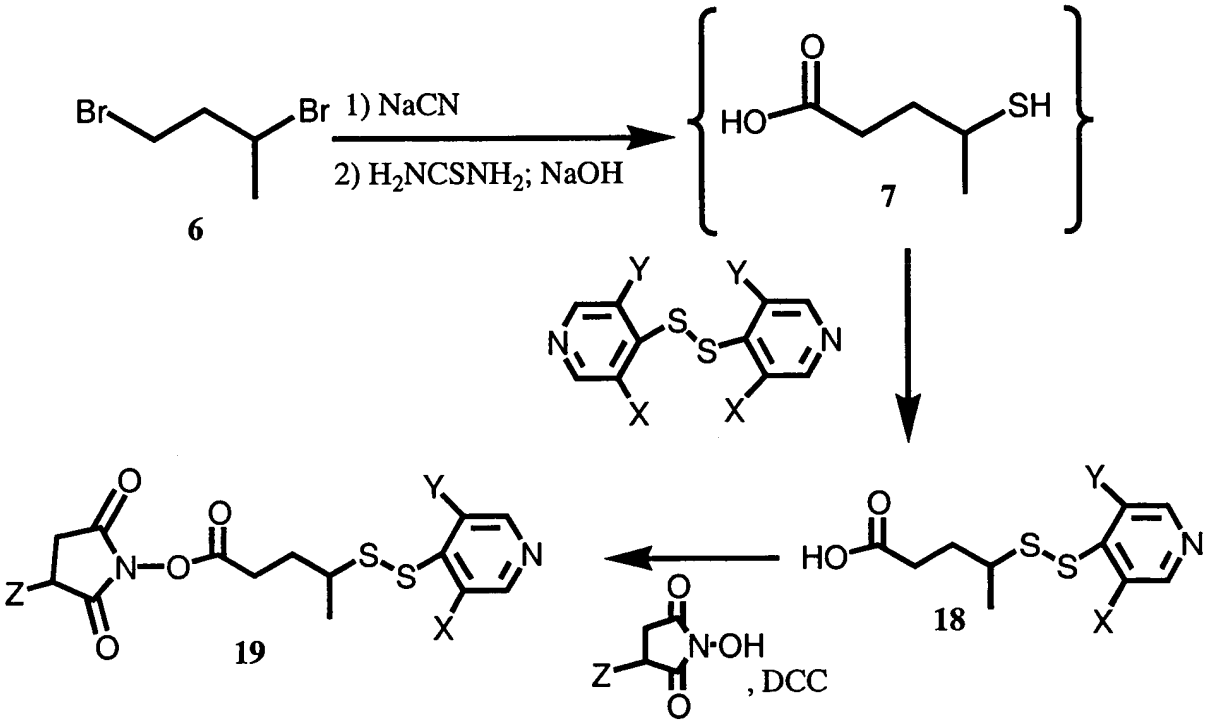
Figure 4



X	Y	Z
$CONMe_2$	H	H (Compound **5a**)
$CONMe_2$	H	$SO_3^-M^+$ (Compound **5b**)
H	$CONMe_2$	H
H	$CONMe_2$	$SO_3^-M^+$
$CONMe_2$	$CONMe_2$	H
$CONMe_2$	$CONMe_2$	$SO_3^-M^+$

M = Na, K etc

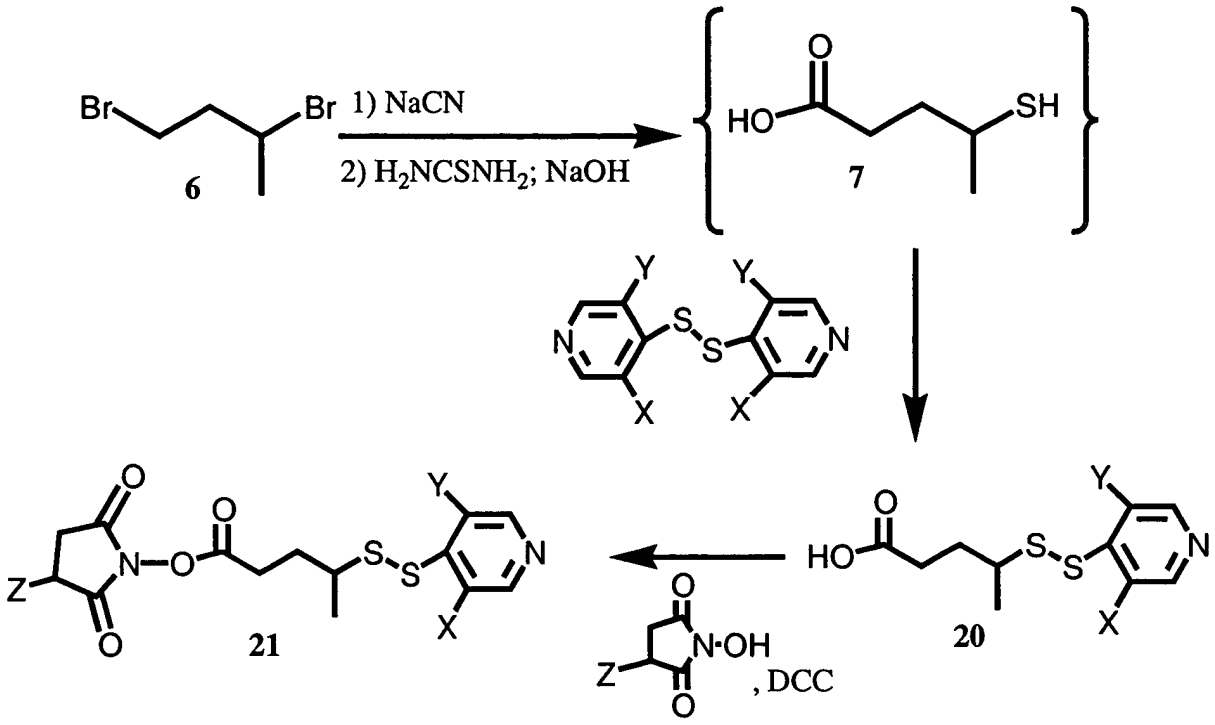
Figure 5



X	Y	Z
$CONMe_2$	H	H
$CONMe_2$	H	$SO_3^-M^+$
$CONMe_2$	$CONMe_2$	H
$CONMe_2$	$CONMe_2$	$SO_3^-M^+$

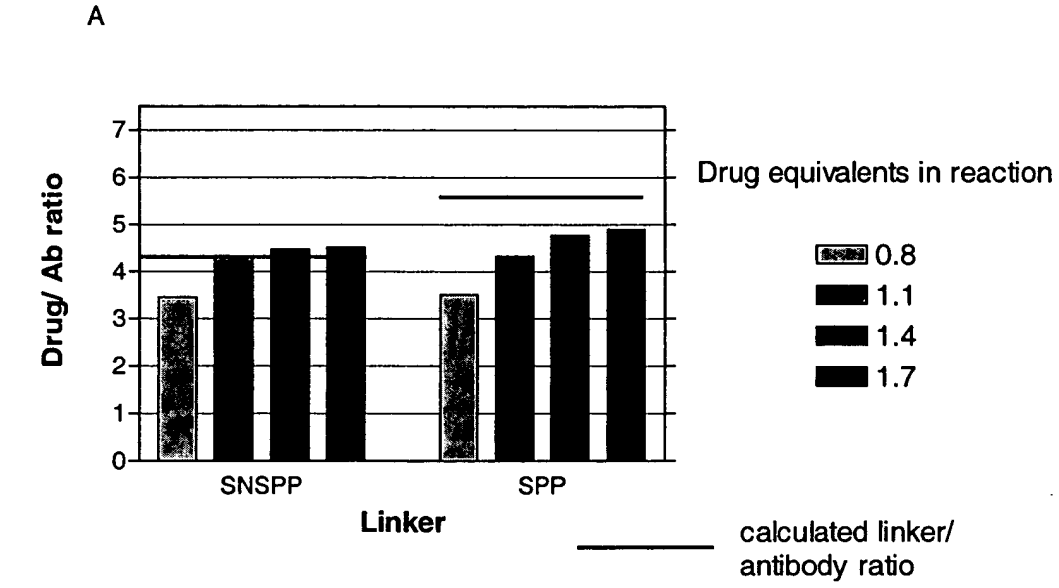
M = Na, K etc

Figure 6



X	Y	Z
NO_2	H	H
NO_2	H	$SO_3^-M^+$
NO_2	NO_2	H
NO_2	NO_2	$SO_3^-M^+$
		M = Na, K etc

Figure 7. Comparison of SSNPP and SPP for efficiency of conjugation with increasing drug equivalents in the conjugation reaction.
a) Drug per antibody ratio; b) % efficiency of conjugation based on linker to antibody ratios of 4.2 for SSNPP and 5.6 for SPP.



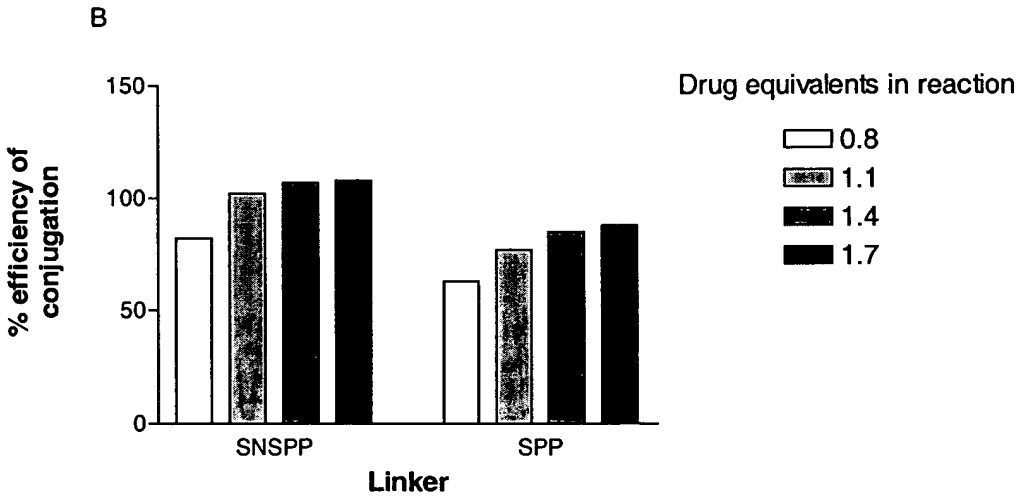


Figure 8. Time course for thiol exchange with SSNPP and SPP linker at pH 7.4 Conjugation was conducted at pH 7.4 using a 1.1-fold molar excess of DM1 per linker.